

**We claim:**

1. A method for detecting or measuring inositol phosphate in a sample comprising
  - a) contacting the sample with an immobilized metal ion; and
  - b) detecting inositol phosphate as bound to the immobilized metal ion.
2. The method of claim 1, wherein the metal ion is selected from  $Zr^{4+}$ ,  $Ga^{3+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ ,  $Sc^{3+}$ , and  $Lu^{3+}$ , and mixtures thereof.
3. The method of claim 2, wherein the metal ion is  $Zr^{4+}$ .
4. The method of claim 1, wherein the metal ion is immobilized to scintillation proximity assay (SPA) beads.
5. The method of claim 1, wherein the inositol phosphate is attached to a label.
6. The method of claim 5, wherein the label is selected from radiolabel, fluorescent label, chemiluminescent label, enzymatic label, immunogenic label, and hapten label.
7. The method of claim 6, wherein the label is a radiolabel.
8. A method for detecting or measuring inositol phosphate in a sample comprising
  - a) contacting the sample with an immobilized metal ion bound to inositol phosphate, said inositol phosphate attached to a label; and
  - b) detecting displacement of the inositol phosphate from the metal ion.
9. The method of claim 8, wherein the metal ion is selected from  $Zr^{4+}$ ,  $Ga^{3+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ ,  $Sc^{3+}$ , and  $Lu^{3+}$ , and mixtures thereof.
10. The method of claim 9, wherein the metal ion is  $Zr^{4+}$ .
11. The method of claim 8, wherein the metal ion is immobilized to SPA beads.

12. The method of claim 8, wherein the label is selected from radiolabel, fluorescent label, chemiluminescent label, enzymatic label, immunogenic label, and hapten label.
13. The method of claim 12, wherein the label is a radiolabel.
14. A method for detecting or measuring activation of a signaling pathway comprising detecting inositol phosphate in accordance with claim 1 or claim 8.
15. A method for detecting or measuring modulation of a signaling pathway comprising detecting inositol phosphate in accordance with claim 1 or claim 8.
16. A method for identifying compounds that modulate a signaling pathway comprising, in the presence and in the absence of a test compound, detecting inositol phosphate in accordance with claim 1 or claim 8.
17. A method for detecting or measuring activation of a signaling pathway comprising
  - a) contacting a sample with an immobilized metal ion; and
  - b) detecting inositol phosphate as bound to the immobilized metal ion.
18. A method for detecting or measuring modulation of a signaling pathway comprising
  - a) contacting a sample with an immobilized metal ion; and
  - b) detecting inositol phosphate as bound to the immobilized metal ion.
19. A method for identifying compounds that modulate a signaling pathway comprising, in the presence and in the absence of a test compound
  - a) contacting the sample with an immobilized metal ion; and
  - b) detecting inositol phosphate as bound to the immobilized metal ion.
20. A method for detecting activation of a phospholipase C-linked receptor and/or its pathway comprising
  - a) providing cells expressing a receptor that utilizes a phospholipase C signaling pathway;
  - b) contacting the cells with labeled inositol;

c) contacting the cells with a receptor agonist, whereby labeled inositol phosphate is generated;  
d) releasing the labeled inositol phosphate from the cells;  
e) contacting the labeled inositol phosphate with an immobilized metal ion under conditions permitting inositol phosphate to bind to the metal ion; and  
f) detecting labeled inositol phosphate as bound to the immobilized metal ion;  
wherein bound labeled inositol phosphate is indicative of receptor and/or pathway activation.

21. The method of claim 20, wherein the receptor is a seven transmembrane domain G protein-coupled receptor or a single transmembrane domain tyrosine kinase-linked receptor.

22. The method of claim 21, wherein the receptor is selected from neurokinin NK1 receptor, muscarinic m1 acetylcholine receptor, PDGF receptor, and NGF receptor.

23. The method of claim 20, wherein the metal ion is selected from  $Zr^{4+}$ ,  $Ga^{3+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ ,  $Sc^{3+}$ , and  $Lu^{3+}$ , and mixtures thereof.

24. The method of claim 23, wherein the metal ion is  $Zr^{4+}$ .

25. The method of claim 20, wherein the metal ion is immobilized to SPA beads.

26. The method of claim 20, wherein the inositol phosphate label is selected from radiolabel, fluorescent label, chemiluminescent label, enzymatic label, immunogenic label, and hapten label.

27. The method of claim 26, wherein the inositol phosphate label is a radiolabel.

28. A method for identifying compounds that modulate a phospholipase C-linked receptor and/or its pathway comprising, in the presence and in the absence of a compound,

- a) providing cells expressing a receptor that utilizes a phospholipase C signaling pathway;
- b) contacting the cells with labeled inositol;

- c) contacting the cells with a receptor agonist, whereby labeled inositol phosphate is generated;
- d) releasing labeled inositol phosphate from the cells;
- e) contacting the labeled inositol phosphate with an immobilized metal ion under conditions to allow inositol phosphate to bind to the metal ion; and
- f) detecting labeled inositol phosphate as bound to the immobilized metal ion;

wherein an alteration in the amount of bound labeled inositol phosphate in the presence of a compound identifies said compound as a compound that modulates the phospholipase C-linked receptor and/or its pathway.

29. A method for detecting inositol monophosphatase activity in a sample comprising

- a) contacting the sample with labeled inositol phosphate under conditions permitting inositol monophosphatase to hydrolyze phosphate from inositol phosphate;
- b) contacting the sample with an immobilized metal ion under conditions permitting inositol phosphate to bind to the metal ion; and
- c) detecting labeled inositol phosphate as bound to the immobilized metal ion;

wherein a decrease in the amount of bound labeled inositol phosphate, as compared to a control, is indicative of inositol monophosphatase activity in the sample.

30. The method of claim 29, wherein the hydrolysis reaction is terminated prior to contacting the sample with the immobilized metal ion.

31. A method for identifying compounds that modulate inositol monophosphatase activity comprising, in the presence and in the absence of a compound,

- a) contacting inositol monophosphatase with labeled inositol phosphate under conditions permitting inositol monophosphatase to hydrolyze phosphate from inositol phosphate;
- b) contacting the reaction mixture of step a) with an immobilized metal ion under conditions permitting inositol phosphate to bind to the metal ion; and
- c) detecting labeled inositol phosphate as bound to the immobilized metal ion;

wherein an alteration in the amount of bound labeled inositol phosphate in the presence of a compound identifies said compound as a compound that modulates inositol monophosphatase activity.

32. The method of claim 31, wherein the hydrolysis reaction is terminated prior to contacting the sample with the immobilized metal ion.

33. A method for detecting inositol-1-phosphate synthase activity in a sample comprising

- a) contacting the sample with labeled inositol under conditions permitting inositol-1-phosphate synthase to catalyse addition of phosphate to inositol;
- b) contacting the sample with an immobilized metal ion under conditions permitting inositol phosphate to bind to the metal ion; and
- c) detecting labeled inositol phosphate as bound to the immobilized metal ion;

wherein an increase in the amount of bound labeled inositol phosphate, as compared to a control, is indicative of inositol-1-phosphate synthase activity in the sample.

34. The method of claim 33, wherein the kinase reaction is terminated prior to contacting the sample with the immobilized metal ion.

35. A method for identifying compounds that modulate inositol-1-phosphate synthase activity comprising, in the presence and in the absence of a compound,

- a) contacting inositol-1-phosphate synthase with labeled inositol under conditions permitting inositol-1-phosphate synthase to catalyse addition of phosphate to inositol;
- b) contacting the reaction mixture of step a) with an immobilized metal ion under conditions permitting inositol phosphate to bind to the metal ion; and
- c) detecting labeled inositol phosphate as bound to the immobilized metal ion;

wherein an alteration in the amount of bound labeled inositol phosphate in the presence of a compound identifies said compound as a compound that modulates inositol-1-phosphate synthase activity.

36. The method of claim 35, wherein the kinase reaction is terminated prior to contacting the sample with the immobilized metal ion.